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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,414	12/20/2001	Mikio Ishihara	461-40	5007

7590

05/12/2003

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EXAMINER

LAWRENCE JR, FRANK M

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 05/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/022,414

Applicant(s)

ISHIHARA ET AL.

Examiner

Frank M. Lawrence

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-7 and 9 is/are rejected.
- 7) ☒ Claim(s) 4, 8 and 10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3, 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. Figures 10-12 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to because in figure 6, the reference numbers “77” and “30” should be switched to remain consistent with the specification and other figures. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Bois (3,499,269).
5. Bois ('269) teaches an exhaust gas purification filter comprising a spring actuated valve member (15) that allows the filter to be bypassed when a predetermined pressure drop is caused by blockage (abstract; claim 1). The functional limitations recited in claims 1 and 2 do not describe any structure that would distinguish the device over the Bois filter.

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6. Claims 3, 5-7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Dimick et al. (4,509,966).

7. Dimick et al. ('966) teach a honeycomb monolith filter having porous walls defining a plurality of channels between two ends, wherein alternating channels are fully plugged in each end, and wherein the non-fully plugged channels in one end are 30-60% plugged (see figures 6-9; col. 6, line 57 to col. 7, line 52). The upper end of the filter in figure 7 is taken to be the downstream end by the examiner when comparing the structure with that of the filter described in the instant claims.

8. Claims 3, 4, 6, 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 58-72414 (utility model).

9. JP '414 teaches an exhaust gas purification filter comprising a honeycomb structure having a multiplicity of cells divided by partitioning walls, wherein alternating cells on the upstream and downstream ends are partially blocked by plugs having a through hole occupying between 5-80% of the cell cross section (see figure 6).

Allowable Subject Matter

10. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: An exhaust gas purification filter of a honeycombed structure having a multiplicity of cells

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surrounded by partition walls, wherein at least some of the cells each have a plug at one of the end portions and at least some of the plugs arranged on the downstream side of the structure in the fluid path are partial plugs having an opening that allows fluid to pass through, wherein the pressure loss caused when the fluid entering the cells passes through the partitioning walls is smaller than the loss caused when the fluid passes through the partial plugs, and wherein the area of the downstream end surface of the filter which is located within a curved line connecting the middle points of the lines connecting the center and the outer periphery of the downstream end surface is defined as a central area, and the area located outside the particular curved line is defined as an outer peripheral area, and wherein the partial plugs represent a higher percentage of the plugs in the central area than in the outer peripheral area, is not taught, disclosed or suggested in a single reference or a combination of references in the prior art of record. The closest prior art discussed above fails to suggest a motivation for arranging the partial and full plugs as recited in claim 10.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional references listed on the attached PTO-892 form disclose honeycomb exhaust filters.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank M. Lawrence whose telephone number is 703-305-0585. The examiner can normally be reached on Mon-Thurs 7:30-5:00; alternate Fridays 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on 703-308-3318. The fax phone numbers for the

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organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

Frank Lawrence

Frank Lawrence

Patent Examiner *5603*

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May 6, 2003